

IN THE CLAIMS

Please amend the claims as follows:

1-23. (canceled)

24. (original) A method for forming a semiconductor package, the method comprising: providing a die with a metal stud on a bond pad; providing a leadframe containing a plurality of leads, the leadframe containing a solderable area surrounded by a solder dam; providing a solder paste in or on the solderable area; attaching the die and the leadframe; and molding a molding material around a portion of the die and a portion of the leadframe.
25. (original) The method of claim 24, wherein the metal stud contains substantially no Pb.

26. (original) The method of claim 25, wherein the amount of Pb in the metal stud is less than about 1 ppm.

27. (original) The method of claim 24, including attaching the die to the leadframe by flipping the die and contacting the metal stud with the solder paste.

28. (original) The method of claim 24, wherein the solderable area contains a pad comprising a non-oxidizable metal.

29. (original) The method of claim 28, wherein the solder dam comprises a metal oxide or polymer material.

30. (original) The method of claim 29, including providing the metal oxide material by providing a metal and then oxidizing the metal.

31. (original) The method of claim 29, including providing the polymeric material by screen printing.

32. (original) The method of claim 24, including molding by using a film assisted molding process.

33. (original) The method of claim 24, further including re-flowing the solder paste after attaching the die and the leadframe.

34-39. (canceled)

40. (new) A method for forming a semiconductor package, the method comprising:
providing a die with a metal stud on a bond pad, the metal stud containing substantially no Pb;

providing a leadframe containing a plurality of leads, the leadframe containing a solderable area surrounded by a solder dam;

providing a solder paste in or on the solderable area;

attaching the die and the leadframe; and

molding a molding material around a portion of the die and a portion of the leadframe.

41. (new) The method of claim 40, wherein the amount of Pb in the metal stud is less than about 1 ppm.

42. (new) The method of claim 40, wherein the solderable area contains a pad comprising a non-oxidizable metal.

43. (new) The method of claim 42, wherein the solder dam comprises a metal oxide or polymer material.

44. (new) The method of claim 43, including providing the metal oxide material by providing a metal and then oxidizing the metal.

45. (new) The method of claim 43, including providing the polymeric material by screen printing.

46. (new) The method of claim 40, including molding by using a film assisted molding process.

47. (new) The method of claim 40, further including re-flowing the solder paste after attaching the die and the leadframe.

48. (new) The method of claim 47, further including providing the leadframe with a depression.

49. (new) The method of claim 48, wherein the depression restricts the flow of the solder paste during the reflow.

50. (new) A method for forming a semiconductor package, the method comprising:
providing a die with a metal stud on a bond pad, the metal stud containing substantially no Pb;

providing a leadframe containing a solderable area surrounded by a solder dam, the solderable area containing a pad comprising a non-oxidizable metal and the solder dam comprising a metal oxide or polymer material;

providing a solder paste in or on the solderable area;
attaching the die and the leadframe; and
molding a molding material around a portion of the die and a portion of the leadframe.

51. (new) A semiconductor package made by the method comprising:
providing a die with a metal stud on a bond pad;

providing a leadframe containing a plurality of leads, the leadframe containing a solderable area surrounded by a solder dam;

providing a solder paste in or on the solderable area;
attaching the die and the leadframe; and
molding a molding material around a portion of the die and a portion of the leadframe.

52. (new) A semiconductor package made by the method comprising:
providing a die with a metal stud on a bond pad, the metal stud containing substantially no Pb;

providing a leadframe containing a plurality of leads, the leadframe containing a solderable area surrounded by a solder dam;

providing a solder paste in or on the solderable area;
attaching the die and the leadframe; and
molding a molding material around a portion of the die and a portion of the leadframe.

53. (new) A semiconductor package made by the method comprising:
providing a die with a metal stud on a bond pad, the metal stud containing substantially no Pb;

providing a leadframe containing a solderable area surrounded by a solder dam, the solderable area containing a pad comprising a non-oxidizable metal and the solder dam comprising a metal oxide or polymer material;

providing a solder paste in or on the solderable area;
attaching the die and the leadframe; and
molding a molding material around a portion of the die and a portion of the leadframe.